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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,594	09/30/2005	Patrice Jannic	58650US007	5638
32692	7590	04/30/2009		
3M INNOVATIVE PROPERTIES COMPANY				
PO BOX 33427				
ST. PAUL, MN 55133-3427				
EXAMINER				
FERGUSON, LAWRENCE D				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
04/30/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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LegalDocketing@mmm.com

### Office Action Summary

**Application No.**

10/551,594

**Applicant(s)**

JANNIC, PATRICE

**Examiner**

Lawrence D. Ferguson

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14, 15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-15 and 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Request for Continued Examination***

1. This action is in response to the Request for Continued Examination filed March 4, 2009. Claims 14 and 17 were amended rendering claims 14-15 and 17-26 pending in this case.

### ***Claim Rejections – 35 USC § 103(a)***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14-15 and 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (U.S. 5,385,979).

Ozawa discloses an adhesive composition (column 1, lines 7-12 and column 2, lines 1-5) comprising a heat-reactive phenolic resin, prepared as a novolac phenolic resin (column 3, lines 53-57 and column 4, lines 37-41) and an elastomer, such as chlorinated natural rubber, or acrylonitrile-butadiene copolymer (column 5, lines 54-65

and column 7, lines 25-33). Applicant defines acrylonitrile-butadiene copolymer as being a nitrile butadiene rubber in paragraph 11 of the instant specification, as in claim 17.

The elastomer is typically used in an amount ranging from 1 to 99% by weight of the adhesive composition (column 6, lines 12-16) and the phenolic resin is typically used in an amount ranging from 20 to 70% by weight of the adhesive composition. Ozawa further discloses a crosslinking agent is used in an amount ranging from about 1 to 95 of the novolac phenolic resin (column 5, lines 35-38) and is used to fully crosslink the novolac phenolic resin (column 4, lines 41-44). Because Applicant has amended claim 14 to include a crosslinking agent, in an amount of less than about 0.25 wt%, it would have been obvious to one of ordinary skill in the art for the phrase, "less than about 0.25 wt%" to be interpreted as including amounts up to 1 wt%, where about 1 wt% as disclosed in Ozawa would be interpreted as including amounts lower than 1 wt%, which includes amounts less than about 0.25wt%.

Concerning the ratio of the mass of one or more novolac phenolic resin over the mass of one or more elastomers, the average of the 20-70% weight of the novolac phenolic resin is 45% and the average of the 1-99% weight of the elastomer is 50%, rendering 45% novolac phenolic resin over 50% elastomer is 0.75, as in claim 15. In claim 14, the phrase, "heat-activatable adhesive has upon curing a glass transition temperature of less than about 60°C", constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform. The phrase, "upon curing" is interpreted as the adhesive not being cured, but being capable of being cured, where

the adhesive composition of Ozawa appears to be capable of being cured. However, if the adhesive is cured, because the adhesive composition of Ozawa has the same materials (elastomer, novolac phenolic resin and crosslinking agent) with the same function, the glass transition temperature, upon curing, would be an expected feature of the adhesive composition. Recitation of a newly disclosed property does not distinguish over a reference disclosure of the article or composition claims. *General Electric v. Jewe Incandescent Lamp Co.*, 67 USPQ 155. *Titanium Metal Corp. v. Banner*, 227 USPQ 773. Applicant bears responsibility for proving that reference composition does not possess the characteristics recited in the claims. *In re Fitzgerald*, 205 USPQ 597, *In re Best*, 195 USPQ 430.

Concerning claim 18, the phrase, "less than 1 wt.%" is construed as 0, therefore, because Ozawa is silent of free phenol content, the reference has 0 wt.% of free phenol content.

Concerning claim 19, the reference discloses crosslinking agents of the adhesive composition include hexamethylenetetramine (column 4, lines 44-51).

Concerning claim 20, the phrase, "one or more vulcanization agents...provided n an amount of less than about 0.25wt%" is construed as including 0wt%.

Concerning claim 21, the phrase, "capable of effecting a crosslinking reaction between the one or more elastomers and the one or more novolac phenolic resins" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform. The crosslinking agent of Ozawa appears to be capable of effecting a

crosslinking reaction between the one or more elastomers and the one or more novolac phenolic resins." About 1 wt% of crosslinking agent as disclosed in Ozawa (column 5, lines 35-38) is interpreted as including amounts lower than 1 wt%, which includes amounts less than about 0.25wt%.

Concerning claim 22, the phrase, "non-curable thermoplastic resins" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of performing a function is not a positive limitation but only requires the ability to so perform where in an amount of less than 20wt.% is interpreted as including 0wt%.

Concerning claim 23, the adhesive composition can contain any known metal oxides such as oxides of zinc and lead, which are construed as being electrically conductive particles.

Concerning claim 24, Ozawa discloses the adhesive composition has a thickness of about 0.1 to 1.0mils (2.54 $\mu$ m to 25.4 $\mu$ m) (column 7, lines 19-22) where about 25.4 $\mu$ m is interpreted as including amounts up to about 30 $\mu$ m, where about 30 $\mu$ m is interpreted as also including amount lower than 30 $\mu$ m.

Concerning claim 25, the adhesive composition of Ozawa is useful for bonding various materials (column 1, lines 8-13). In claim 25, the phrase, "capable of being functionally maintained for at least about 200 Flexural Cycles" constitutes a 'capable of' limitation and that such a recitation that an element is 'capable of' performing a function is not a positive limitation but only requires the ability to so perform.

***Claim Rejections – 35 USC § 103(a)***

4. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (U.S. 5,385,979) in view of Kropp et al (U.S. 6,500,891).

Ozawa is relied upon for instant claim 14, as above. Ozawa does not explicitly disclose the assembly has an electronic element. Although Ozawa discloses the adhesive composition is useful for bonding various materials (column 1, lines 8-13) the reference does not specifically teach the adhesive composition is useful for bonding an electronic element. Kropp teaches an adhesive composition comprising novolac phenolic resin, which is used to bond an electronic part of a circuit board to a chip (column 11, lines 4-10 and column 12, lines 1-7). It would have been obvious to one of ordinary skill in the art to have substituted the adhesive composition of Ozawa for the adhesive composition of Kropp in order to bond the electronic parts of Kropp, as Kropp teaches adhesive compositions can be used to bond electronic parts and Ozawa teaches the adhesive composition can bond various materials (column 1, lines 8-13) which include electronic parts.

**Response to Arguments**

5. The rejection made under 35 U.S.C. 112, second paragraph is withdrawn due to Applicant amending claim 14 by deleting the phrase "an effective amount" and adding "in

an amount of less than about 0.25 wt%" to more particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection made under 35 U.S.C. 102(b) as being anticipated by Ozawa et al. (U.S. 5,385,979) is withdrawn due to Applicant amending claim 14 to include one or more crosslinking agents, "in an amount of less than about 0.25 wt%." The rejection has been maintained as being unpatentable over Ozawa et al. (U.S. 5,385,979). Applicant argues the Ozawa reference was misread, as the adhesive compositions of Ozawa are based on chlorinated polyolefins having chlorinated natural and synthetic rubbers, where claim 14 does not recite chlorinated elastomers. Ozawa discloses an adhesive composition (column 1, lines 7-12 and column 2, lines 1-5) comprising a heat-reactive phenolic resin, prepared as a novolac phenolic resin (column 3, lines 53-57 and column 4, lines 37-41) and an elastomer, such as chlorinated natural rubber (column 5, lines 54-65). Although claim 14 does not specifically recite chlorinated natural rubber, the instant claims do not exclude the natural rubber of Ozawa from being chlorinated. Whether or not natural rubber is chlorinated does not change the rubber to be synthetic. Applicant indicates evidence has been submitted to show natural rubber is non-chlorinated in a well-known book in the polymer science field, Introduction to Physical Polymer Science, 2nd Edition, by L.H. Sperling, on page 153, section 4.5.1. The addendum of the book submitted by Applicant does not appear to show page 153, section 4.5.1. Only pages 122-152 were submitted; therefore, the evidence submitted by Applicant has not been considered and cannot be relied on.



Applicant's arguments of the rejection under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (U.S. 5,385,979) in view of Fleming et al (U.S. 2,839,443) are moot based on grounds of new rejection.

The rejection made under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (U.S. 5,385,979) in view of Kropp et al (U.S. 6,500,891) has not been argued by Applicant; therefore, the rejection is maintained for reasons of record.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample, can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lawrence Ferguson/  
Patent Examiner, Art Unit 1794

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 1794